Attorney Docket No.: 16869B-082800US

Client ref. No.: HAL-280

## METHOD AND APPARATUS FOR DATA RECOVERY USING STORAGE BASED JOURNALING

## ABSTRACT OF THE DISCLOSURE

A storage system maintains a journal and a snapshot of one or more data volumes. Two journal entry types are maintained, an AFTER journal entry and a BEFORE journal entry. Two modes of data recovery are provided: "fast" recovery and "undo-able" recovery. A combination of both recovery modes allows the user to quickly recover a targeted data state.

PA 3309316 v1